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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,068	02/18/2004	Alex Krister Raith	4015-5195	1841
24112	7590	08/04/2005	EXAMINER	
COATS & BENNETT, PLLC			HO, DUC CHI	
P O BOX 5			ART UNIT	
RALEIGH, NC 27602			PAPER NUMBER	
			2665	

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,068

Applicant(s)

RAITH, ALEX KRISTER

Examiner

Duc C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-46, 48, 52, 53 and 55-65 is/are rejected.
- 7) ☒ Claim(s) 47, 49-51 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02-18-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 55-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Funk (U.S. 6,169,884).

Regarding claim 55, Funk discloses method and apparatus for reducing power in radio transmitters.

a temperature measuring device (the thermistor 115-fig. 1) for determining a temperature of said transceiver (a not-shown transceiver of the radio 101-fig. 1, see col. 3, lines 13-53)

a processor (a processor 109-fig. 1) for comparing said measured temperature with a threshold temperature (high threshold temperature, see col. 3, lines 40-67);

and

an output device for providing and indication of said measured temperature (the processor 109-fig. 1 inherently compares the measured temperature with a high threshold temperature, and displays the result on the display 117-fig. 1, see col. 3, lines 30-67).

Regarding claim 56, the system of Funk-fig.1 is capable of transmitting an indication of the measured temperature over an air interface.

Regarding claim 57, the output device for providing an indication of the measured temperature of the host computer 105 is the graphical display 117-fig. 1.

Regarding claim 58, the output device in Funk's system is capable to be designed as a speaker.

4. Claim 59 is rejected under 35 U.S.C. 102(e) as being anticipated by Ohno (U.S. 5,848,062).

Regarding claim 59, Ohno discloses wireless communication for remote station.

measuring a temperature of said mobile station (the temperature sensor 7-fig. 4 is employed to measure a temperature of a remote station 200-fig. 1, see col. 1, lines 1-67, and col. 5, lines 36-57);

comparing said measured temperature to a threshold temperature (the temperature sensor 7-fig. 4 inherently compares whether the temperature in the box is higher than the set temperature, see col. 3-line 17 to col.4-line 2, and col. 5, lines 36-57); and

reducing a transmission rate in response to said comparison (the temperature control portion 5-fig. 4 changes the transmission rate in such a way the transmission rate is lowered from 64 kbps to 32 kbps in response to the detected high temperature exceeding the set temperature, see col. 5, lines 42-52).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 42-44, 48, 52, 53, and 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno, in view of Funk.

Regarding claim 60, Ohno discloses inserting information about a change in transmission rate into a top portion of a burst data of the transmission data from the remote station, and the inserted data is transmitted to the base station. Ohno, however, doesn't specially disclose providing an indication at the mobile station of the reduced transmission rate.

Funk discloses method and apparatus for reducing power in radio transmitters. In Funk if the temperature of the mobile radio device exceeds a threshold then, when the device is to transmit information, transmission power of the mobile device is reduced, thereby reducing heat generated within the mobile device, see col. 2, lines 20-29. Since the data transmission rate is proportional to transmission power, therefore, when the transmission power is reduced, the data transmission is lowered as a result.

Further, the processor 109-fig. 1 is able to display the converted temperature signal into digital quantity result on the display 117-fig. 1, see col. 3, lines 30-67.

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One skill in the art would recognize the advantage of having a display for displaying information related to a change in temperature and/or a change in transmission rate since it is beneficial to a mobile user as what to anticipate when information related to a reduction in data transmission is provided.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Ohno with Funk.

The suggestion/motivation for doing so would have been to provide information related to a reduction in data transmission due to a change in temperature.

Therefore, it would have been obvious to combine Ohno with Funk to obtain the invention as specified in claim 60.

Regarding claim 61, please see the rejection of claim 60. In Ohno, the reduction in transmission rate is temperature related.

Regarding claim 42, Ohno discloses wireless communication for remote station. Ohno also discloses inserting information about a change in transmission rate into a top portion of a burst data of the transmission data from the remote station, and the inserted data is transmitted to the base station if the measured temperature exceeds the threshold temperature level.

measuring, at a mobile station, a temperature level (the temperature sensor 7-fig. 4 is employed to measure a temperature of a remote station 200-fig. 1, see col. 1, lines 1-67, and col. 5, lines 36-57);

comparing said measured temperature with a threshold temperature level(the temperature sensor 7-fig. 4 inherently compares whether the temperature in the box is higher than the set temperature, see col. 3-line 17 to col.4-line 2, and col. 5, lines 36-57).

Ohno, however, does not expressly disclose transmitting an indication from the mobile station to the system if the measured temperature exceeds the threshold temperature level.

Funk discloses method and apparatus for reducing power in radio transmitters. In Funk if the temperature of the mobile radio device exceeds a threshold then, when the device is to transmit information, transmission power of the mobile device is reduced, thereby reducing heat generated within the mobile device, see col. 2, lines 20-29. Since the data transmission rate is proportional to transmission power, therefore, when the transmission power is reduced, the data transmission is lowered as a result.

Further, the processor 109-fig. 1 is able to display the converted temperature signal into digital quantity result on the display 117-fig. 1, see col. 3, lines 30-67.

One skill in the art would recognize the advantage of having a display for displaying information related to a change in temperature and/or a change in transmission rate since it is beneficial to a mobile user as what to anticipate when information related to a reduction in data transmission is provided.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Ohno with Funk.

The suggestion/motivation for doing so would have been to provide information related to a reduction in data transmission due to a change in temperature.

Therefore, it would have been obvious to combine Ohno with Funk to obtain the invention as specified in claim 42.

Regarding claim 43, please see the rejection of claim 42. In Funk the graphic display 117-fig. 1 displays the change in temperature as the measured temperature exceeds the threshold temperature level.

Regarding claim 44, Ohno teaches reducing the data transmission rate from 64 kbps down to 32 kbps in response to the exceeding change in temperature as compared to the set temperature.

Regarding claim 48, please see the rejection of claims 42, and 44. In Ohno the base station is possible to communicate a change of the transmission rate to the mobile station, i.e., an indication, as a result of a change in temperature that exceeds the set temperature, see col. 5, lines 42-57.

Regarding claim 52, please see the rejection of claims 42, and 44. In Ohno the base station is possible to communicate a change of the transmission rate to the mobile station, i.e., via a timeslot in a downlink, as a result of a change in temperature that exceeds the set temperature, see col. 5, lines 42-57.

Regarding claim 53, the mobile station in the system of Ohno is capable of transmitting one timeslot on a frequency previously used by the mobile station in an uplink.

7. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno, in view of Funk, and further in view of Hamalainen et al. (US 6,072,787), hereinafter referred to as Hamalainen.

Regarding claim 45, Ohno and Funk disclose all claimed limitations, except allocating in N timeslots per frame rather than M timeslots per frame to establish a reduced transmission rate, where $M > N$.

Hamalainen discloses high-speed data transmission in a digital mobile communication system. In Hamalainen, the data transmission utilizes various multiple access methods, such as TDMA or CDMA, see col. 4, lines 3-6. The data transfer rate is dynamically adjusted depending on the resources of the network in a mobile communication system employing a so-called multi-

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channel access technique in which system maximum, and optionally maybe also minimum requirements are determined for the transfer rate of the user data for establishing a data call, see col. 3, lines 5-12, and col. 6, lines 17-28. In other words, the system of Hamalainen is capable of allocating the time slots as claimed that an allocation of N timeslots per frame rather than M timeslots per frame to establish a reduced transmission rate, where $M > N$.

One skill in the art would recognize the advantage of employing a mechanism in which the data transfer rate is dynamically adjusted depending on the resources of the network in a mobile communication system when the resources are not sufficient for providing a desired channel configuration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Ohno and Funk with Hamalainen.

The suggestion/motivation for doing so would have been to provide a reduction in data transmission rate when the resources are not sufficient for providing a desired channel configuration.

Therefore, it would have been obvious to combine Ohno and Funk with Hamalainen to obtain the invention as specified in claim 45.

Regarding claim 46, please see the rejection of claim 45. The system of Hamalainen also utilizes CDMA. In other words, using N codes rather than M codes in a CDMA system, where $M > N$.

Allowable Subject Matter

8. Claims 47, 49-51, and 54 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Secord et al. (US 6,373,831); Andersson et al. (US 5,604,744) are cited to show thermal transmission control of wireless data modem, which is considered pertinent to the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in black ink, appearing to read 'Duc Ho', with a horizontal line extending from the end of the signature.

Duc Ho

07-22-05